Analytical Data Package Prepared For

Pacific Northwest National Lab

Radiochemical Analysis By

STL Richland STLRL

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Data Package Contains _____ Pages

Report Nbr: 34298

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05076	I07-010	B1L294	J6L080147-1	JK3V31AA	9JK3V310	6353627
		B1L294	J6L080147-1	JK3V31AC	9JK3V310	6353633
		B1L294	J6L080147-1	JK3V31AD	9JK3V310	6353623
		B1L2C3	J6L080147-2	JK3W81AA	9JK3W810	6353627
		B1L2C3	J6L080147-2	JK3W81AC	9JK3W810	6353633
		B1L2C3	J6L080147-2	JK3W81AD	9JK3W810	6353623
		B1L299	J6L080147-3	JK3XF1AA	9JK3XF10	6353627
		B1L299	J6L080147-3	JK3XF1AC	9JK3XF10	6353633
		B1L299	J6L080147-3	JK3XF1AD	9JK3XF10	6353623
		B1L289	J6L080147-4	JK3XT1AA	9JK3XT10	6353627
		B1L289	J6L080147-4	JK3XT1AC	9JK3XT10	6353633
		B1L289	J6L080147-4	JK3XT1AD	9JK3XT10	6353623
	I07-009	B1L216	J6L110136-1	JK70P1AA	9JK70P10	6353627
		B1L216	J6L110136-1	JK70P1AC	9JK70P10	6353623
	W07-011	B1L650	J6L110147-1	JK72X1AA	9JK72X10	6353636

Comments:

Report Nbr: 34298

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05076	W07-011	B1L650	J6L110147-1	JK72X1AC	9JK72X10	6353638
		B1L650	J6L110147-1	JK72X1AD	9JK72X10	6353637
		B1L650	J6L110147-1	JK72X1AE	9JK72X10	6353623
		B1L600	J6L110147-2	JK73K1AA	9JK73K10	6353636
		B1L600	J6L110147-2	JK73K1AC	9JK73K10	6353623
	I07-011	B1L2R2	J6L110151-1	JK7341AA	9JK73410	6353628
		B1L2X2	J6L110151-2	JK7361AA	9JK73610	6353628
		B1L2X1	J6L110151-3	JK7391AA	9JK73910	6353628
	S07-011	B1L3D3	J6L110154-1	JK75E1AA	9JK75E10	6353633
	S07-012	B1LCV5	J6L110155-1	JK7521AA	9JK75210	6353631
		B1LCM9	J6L110156-1	JK76K1AA	9JK76K10	6353628
		B1LCN4	J6L110156-2	JK76P1AA	9JK76P10	6353628
		B1LCP4	J6L110156-3	JK76T1AA	9JK76T10	6353628
		B1LCN9	J6L110156-4	JK76X1AA	9JK76X10	6353631
		B1LCN9	J6L110156-4	JK76X1AC	9JK76X10	6353628
		B1LCK0	J6L130175-1	JLDGA1AA	9JLDGA10	6353636
		B1LCK0	J6L130175-1	JLDGA1AC	9JLDGA10	6353631
		B1LCK0	J6L130175-1	JLDGA1AD	9JLDGA10	6353628
		B1LCM0	J6L130175-2	JLDGF1AA	9JLDGF10	6353633
		B1LCM0	J6L130175-2	JLDGF1AC	9JLDGF10	6353631
		B1LCM0	J6L130175-2	JLDGF1AD	9JLDGF10	6353628
		B1LCL9	J6L130175-3	JLDGJ1AA	9JLDGJ10	6353633
		B1LCL9	J6L130175-3	JLDGJ1AC	9JLDGJ10	6353631
		B1LCL9	J6L130175-3	JLDGJ1AD	9JLDGJ10	6353628
		B1LCL0	J6L130175-4	JLDG41AA	9JLDG410	6353628

Comments:

SEVERN TRENT STL

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Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

January 24, 2007

Attention: Dot Stewart

SAF Number	:	I07-010, I07-009, W07-011, S07-011, S07-012
Date SDG Closed	:	December 11, 2006
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W05076
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between December 5, 2006 and December 11, 2006, twenty water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Pacific Northwest National Laboratories (PGW) specific IDs:

PGW ID#	STLR ID#	DATE OF RECEIPT	MATRIX
B1L289	JK3XT	12/5/06	WATER
B1L299	JK3XF	12/5/06	WATER
B1L2C3	JK3W8	12/5/06	WATER
B1L294	JK3V3	12/5/06	WATER
B1L216	JK70P	12/6/06	WATER
B1L600	JK73K	12/6/06	WATER
B1L650	JK72X	12/6/06	WATER
B1L2X1	JK739	12/7/06	WATER
B1L2X2	JK736	12/7/06	WATER
B1L2R2	JK734	12/7/06	WATER
B1L3D3	JK75E	12/7/06	WATER
B1LCV5	JK752	12/8/06	WATER
B1LCN9	JK76X	12/8/06	WATER

B1LCP4	JK76T	12/8/06	WATER
B1LCN4	JK76P	12/8/06	WATER
B1LCM9	JK76K	12/8/06	WATER
B1LCL0	JLDG4	12/11/06	WATER
B1LCL9	JLDGJ	12/11/06	WATER
B1LCM0	JLDGF	12/11/06	WATER
B1LCK0	JLDGA	12/11/06	WATER

II. Sample Receipt

Sample B1L650, COC W07-011-432, has a sample date of 12/5/06 however the COC was signed 12/06/06. The client was notified on 12/3/06 via email. The other samples in this SDG were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Alpha Spectroscopy
Uranium 234, 235 and 238 by method RICH-RC-5039
Gas Proportional Counting
Gross Alpha by method RICH-RC-5014
Gross Beta by method RICH-RC-5014
Strontium-90 by method RICH-RC-5006
Gamma Spectroscopy
Iodine-129 (LL) by method RICH-RC-5025
Liquid Scintillation Counting
Technetium-99 by TEVA method RICH-RC-5065
Tritium by method RICH-RC-5007
Laser Induced Phosphorimetry
Total Uranium by method RICH-RC-5058

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

V. Comments

Alpha Spectroscopy

Uranium 234, 235 and 238 by method RICH-RC-5039
The LCS, batch blank, samples and sample duplicate (B1LCK0) results are within contractual requirements.

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014:
The LCS, batch blank, samples and sample duplicate (B1L650) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:
The LCS, batch blank, samples and sample duplicate (B1L650) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006
The tech notes in the comment section that sample B1L299 may have slightly contaminated sample B1L3D3. The results show sample B1L299 is negative and B1L3D3 has a duplicate that agrees with it very well. Data will be accepted. Except as noted, the LCS, batch blank, samples and sample duplicate (B1L3D3) results are within contractual requirements.

Gamma Spectroscopy

Iodine-129 (LL) by method RICH-RC-5025:
The LCS, batch blank, samples and sample duplicate (B1L216) results are within contractual requirements.

Liquid Scintillation Counting

Technetium-99 by TEVA method RICH-RC-5065:
The LCS, batch blank, samples, sample duplicate (B1L294), and sample matrix spike (B1L2C3) results are within contractual requirements.

Tritium by method RICH-RC-5007:
The LCS, batch blank, samples and sample duplicate (B1L650) results are within contractual requirements.

Total Uranium

Total Uranium by method RICH-RC-5058:
Sample B1L2R2 showed some matrix effect during counting and gave low results. It was recounted at a 1:10 dilution with good results. The tech forgot to count a blank at the end of the calibration on Jan. 22, 2007. A blank was counted at the end of the batch and was within limits. Data is accepted. Except as noted, the LCS, batch blank, samples, sample duplicate (B1LCP4), and sample matrix spike (B1LCN9) results are within contractual requirements.

Pacific Northwest National Laboratories
January 24, 2007

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:

Sherryl A. Adam
Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES	
Referenced Method	**Isotope(s)**	**STL Richland's SOP number**
EPA 901.1	Cs-134, I-131	RICH-RC-5017
EPA 900.0	Alpha & Beta	RICH-RC-5014
EPA 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr89/90	RICH-RC-5006
ASTM D2460	Total Radium	RICH-RC-5027
Standard Method 7500-U-C & ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007
NOTE:		
The Gross Alpha LCS is prepared with Am-241 (unless otherwise specified in the case narrative)		
The Gross Beta LCS is prepared with Sr/Y-90 (unless otherwise specified in the case narrative)		

Uncertainty Estimation

STL Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/vn), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or STL Richland.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) *u_c - Combined Uncertainty.*	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, *u_c the combined uncertainty*. The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by STL Richland upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34298 File Name: h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JK3V310	B1L294		MW6-SBB-A1	I07-010	W05076					12/05/2006 10:28

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353627	I-129L	15046-84-1	-2.85E-02	pCi/L	1.3E-01	1.3E-01	U	2.30E-01	97.3	I129LL_SEP_LEPS	3.8724E+00	L	01/23/2007 16:24	I
6353633	SR-90	10098-97-2	2.85E-01	pCi/L	2.5E-01	2.5E-01	U	4.88E-01	80.8	SRISO_SEP_PRE	1.0044E+00	L	01/19/2007 07:00	I
6353623	Tc-99	14133-76-7	1.41E+02	pCi/L	7.6E+00	1.4E+01		9.81E+00	100.0	TC99_ETVDSK_LS	1.263E-01	L	01/13/2007 09:57	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JK3W810	B1L2C3		MW6-SBB-A1	I07-010	W05076					12/05/2006 08:54

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353627	I-129L	15046-84-1	1.71E-02	pCi/L	1.5E-01	1.5E-01	U	2.74E-01	95.9	I129LL_SEP_LEPS	3.8986E+00	L	01/23/2007 16:25	I
6353633	SR-90	10098-97-2	-1.02E-01	pCi/L	2.0E-01	2.2E-01	U	5.07E-01	85.5	SRISO_SEP_PRE	1.0005E+00	L	01/19/2007 07:00	I
6353623	Tc-99	14133-76-7	5.51E+01	pCi/L	5.7E+00	8.9E+00		9.77E+00	100.0	TC99_ETVDSK_LS	1.275E-01	L	01/13/2007 09:57	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JK3XF10	B1L299		MW6-SBB-A1	I07-010	W05076					12/05/2006 11:02

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353627	I-129L	15046-84-1	3.98E-02	pCi/L	1.4E-01	1.4E-01	U	2.69E-01	91.4	I129LL_SEP_LEPS	3.8695E+00	L	01/23/2007 16:25	I
6353633	SR-90	10098-97-2	-2.36E-01	pCi/L	2.0E-01	2.1E-01	U	5.05E-01	82.2	SRISO_SEP_PRE	1.0058E+00	L	01/19/2007 07:00	I
6353623	Tc-99	14133-76-7	8.62E+01	pCi/L	6.5E+00	1.1E+01		9.89E+00	100.0	TC99_ETVDSK_LS	1.25E-01	L	01/13/2007 07:36	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JK3XT10	B1L289		MW6-SBB-A1	I07-010	W05076					12/05/2006 09:19

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353627	I-129L	15046-84-1	-5.47E-02	pCi/L	1.3E-01	1.3E-01	U	2.37E-01	96.2	I129LL_SEP_LEPS	3.8811E+00	L	01/23/2007 18:09	I
6353633	SR-90	10098-97-2	-1.05E-01	pCi/L	2.2E-01	2.2E-01	U	5.12E-01	83.4	SRISO_SEP_PRE	1.0017E+00	L	01/19/2007 07:00	I
6353623	TC-99	14133-76-7	3.58E+01	pCi/L	5.2E+00	7.9E+00		9.95E+00	100.0	TC99_ETVDSK_LS	1.245E-01	L	01/13/2007 08:39	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JK70P10	B1L216		MW6-SBB-A1	I07-009	W05076					12/06/2006 13:13

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353627	I-129L	15046-84-1	8.46E-01	pCi/L	2.7E-01	2.7E-01	U	4.31E-01	95.9	I129LL_SEP_LEPS	3.9187E+00	L	01/23/2007 18:10	I
6353623	TC-99	14133-76-7	9.53E+02	pCi/L	1.7E+01	6.3E+01		9.78E+00	100.0	TC99_ETVDSK_LS	1.263E-01	L	01/13/2007 09:41	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34298 File Name: h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JK72X10	B1L650		MW6-SBB-A1	W07-011	W05076					12/05/2006 11:50

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353636	H-3	10028-17-8	1.07E+03	pCi/L	1.6E+02	1.8E+02		2.96E+02	100.0	906.0_H3_LSC	5.00E-03	L	01/07/2007 03:15	I
6353638	ALPHA	12587-46-1	5.33E-01	pCi/L	9.5E-01	9.5E-01	U	2.03E+00	100.0	9310_ALPHABETA	1.671E-01	L	01/16/2007 17:05	I
6353637	BETA	12587-47-2	6.96E+01	pCi/L	4.3E+00	1.0E+01		2.99E+00	100.0	9310_ALPHABETA	1.822E-01	L	01/16/2007 13:29	I
6353623	TC-99	14133-76-7	2.63E+02	pCi/L	9.6E+00	2.1E+01		9.80E+00	100.0	TC99_ETVDSK_LS	1.264E-01	L	01/13/2007 10:44	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JK73410	B1L2R2		MW6-SBB-A1	I07-011	W05076					12/07/2006 09:14

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353628	Uranium	7440-61-1	3.59E+00	ug/L	3.7E-01	3.7E-01		7.62E-02		UTOT_KPA	2.75E-02	ML	01/22/2007 16:39	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JK73610	B1L2X2		MW6-SBB-A1	I07-011	W05076					12/07/2006 10:38

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353628	Uranium	7440-61-1	1.20E+00	ug/L	1.2E-01	1.2E-01		8.35E-02		UTOT_KPA	2.51E-02	ML	01/19/2007 11:33	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JK73910	B1L2X1		MW6-SBB-A1	I07-011	W05076					12/07/2006 10:38

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353628	Uranium	7440-61-1	1.19E+00	ug/L	1.2E-01	1.2E-01		7.57E-02		UTOT_KPA	2.77E-02	ML	01/19/2007 11:40	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JK73K10	B1L600		MW6-SBB-A1	W07-011	W05076					12/06/2006 12:45

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353636	H-3	10028-17-8	2.09E+04	pCi/L	4.8E+02	9.4E+02		2.97E+02	100.0	906.0_H3_LSC	5.00E-03	L	01/07/2007 05:59	I
6353623	TC-99	14133-76-7	4.00E+02	pCi/L	1.1E+01	2.9E+01		9.64E+00	100.0	TC99_ETVDSK_LS	1.282E-01	L	01/13/2007 11:46	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JK75210	B1LCV5		MW6-SBB-A1	S07-012	W05076					12/08/2006 10:18

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353631	U-234	13966-29-5	1.76E+01	pCi/L	1.4E+00	3.2E+00		1.32E-01	103.1	UISO_PLATE_AEA	1.993E-01	L	01/12/2007 21:18	I
6353631	U-235	15117-96-1	6.84E-01	pCi/L	2.8E-01	3.0E-01		1.32E-01	103.1	UISO_PLATE_AEA	1.993E-01	L	01/12/2007 21:18	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

6353631	U-238	U-238	1.59E+01	pCi/L	1.3E+00	2.9E+00		1.32E-01	103.1	UISO_PLATE_AEA	1.993E-01	L	01/12/2007 21:18 I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JK75E10	B1L3D3		MW6-SBB-A1	S07-011	W05076					12/07/2006 11:41

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353633	SR-90	10098-97-2	2.15E+00	pCi/L	3.6E-01	4.8E-01		4.35E-01	76.0	SRISO_SEP_PRE	9.966E-01	L	01/19/2007 07:00	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JK76K10	B1LCM9		MW6-SBB-A1	S07-012	W05076					12/08/2006 13:23

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353628	Uranium	7440-61-1	-7.56E-03	ug/L	1.1E-03	1.1E-03	U	8.00E-02		UTOT_KPA	2.62E-02	ML	01/19/2007 11:42	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JK76P10	B1LCN4		MW6-SBB-A1	S07-012	W05076					12/08/2006 12:11

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353628	Uranium	7440-61-1	-1.02E-02	ug/L	1.7E-03	1.7E-03	U	8.15E-02		UTOT_KPA	2.57E-02	ML	01/19/2007 11:47	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JK76T10	B1LCP4		MW6-SBB-A1	S07-012	W05076					12/08/2006 09:45

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353628	Uranium	7440-61-1	2.46E-02	ug/L	2.7E-03	2.7E-03	U	8.25E-02		UTOT_KPA	2.54E-02	ML	01/19/2007 11:51	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JK76X10	B1LCN9		MW6-SBB-A1	S07-012	W05076					12/08/2006 10:51

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353631	U-234	13966-29-5	2.49E+01	pCi/L	1.7E+00	4.5E+00		1.45E-01	98.1	UISO_PLATE_AEA	2.062E-01	L	01/12/2007 21:19	I
6353631	U-235	15117-96-1	9.32E-01	pCi/L	3.4E-01	3.7E-01		1.45E-01	98.1	UISO_PLATE_AEA	2.062E-01	L	01/12/2007 21:19	I
6353631	U-238	U-238	2.21E+01	pCi/L	1.6E+00	4.0E+00		1.45E-01	98.1	UISO_PLATE_AEA	2.062E-01	L	01/12/2007 21:19	I
6353628	Uranium	7440-61-1	6.10E+01	ug/L	7.2E+00	7.2E+00		8.06E-02		UTOT_KPA	2.60E-02	ML	01/19/2007 12:09	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JLDG410	B1LCL0		MW6-SBB-A1	S07-012	W05076					12/11/2006 12:19

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353628	Uranium	7440-61-1	1.07E+02	ug/L	1.3E+01	1.3E+01		8.32E-02		UTOT_KPA	2.52E-02	ML	01/19/2007 12:24	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34298 File Name: h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JLDGA10	B1LCK0		MW6-SBB-A1	S07-012	W05076					12/11/2006 13:54

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353636	H-3	10028-17-8	5.78E+03	pCi/L	2.7E+02	3.7E+02		2.97E+02	100.0	906.0_H3_LSC	5.00E-03	L	01/07/2007 07:20	I
6353631	U-234	13966-29-5	3.62E+01	pCi/L	2.1E+00	6.3E+00		2.02E-01	95.5	UISO_PLATE_AEA	2.008E-01	L	01/12/2007 21:19	I
6353631	U-235	15117-96-1	1.54E+00	pCi/L	4.4E-01	5.1E-01		1.27E-01	95.5	UISO_PLATE_AEA	2.008E-01	L	01/12/2007 21:19	I
6353631	U-238	U-238	3.41E+01	pCi/L	2.1E+00	6.0E+00		1.27E-01	95.5	UISO_PLATE_AEA	2.008E-01	L	01/12/2007 21:19	I
6353628	Uranium	7440-61-1	1.01E+02	ug/L	1.2E+01	1.2E+01		7.68E-02		UTOT_KPA	2.73E-02	ML	01/19/2007 12:18	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JLDGF10	B1LCM0		MW6-SBB-A1	S07-012	W05076					12/11/2006 07:50

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353633	SR-90	10098-97-2	-1.56E-01	pCi/L	2.1E-01	2.1E-01	U	5.19E-01	66.8	SRISO_SEP_PRE	1.0012E+00	L	01/19/2007 07:00	I
6353631	U-234	13966-29-5	3.58E-02	pCi/L	1.1E-01	1.1E-01	U	2.82E-01	83.3	UISO_PLATE_AEA	2.005E-01	L	01/12/2007 21:20	I
6353631	U-235	15117-96-1	-4.22E-03	pCi/L	1.1E-01	1.1E-01	U	2.12E-01	83.3	UISO_PLATE_AEA	2.005E-01	L	01/12/2007 21:20	I
6353631	U-238	U-238	0.00E+00	pCi/L	1.1E-01	1.1E-01	U	2.12E-01	83.3	UISO_PLATE_AEA	2.005E-01	L	01/12/2007 21:20	I
6353628	Uranium	7440-61-1	1.18E-02	ug/L	1.3E-03	1.3E-03	U	8.22E-02		UTOT_KPA	2.55E-02	ML	01/19/2007 12:20	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JLDGJ10	B1LCL9		MW6-SBB-A1	S07-012	W05076					12/11/2006 10:27

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353633	SR-90	10098-97-2	2.63E+00	pCi/L	3.6E-01	5.2E-01		3.97E-01	83.6	SRISO_SEP_PRE	9.936E-01	L	01/19/2007 07:00	I
6353631	U-234	13966-29-5	1.37E+01	pCi/L	1.5E+00	2.8E+00		2.74E-01	95.4	UISO_PLATE_AEA	2.031E-01	L	01/12/2007 21:21	I
6353631	U-235	15117-96-1	5.03E-01	pCi/L	3.0E-01	3.1E-01		2.45E-01	95.4	UISO_PLATE_AEA	2.031E-01	L	01/12/2007 21:21	I
6353631	U-238	U-238	1.25E+01	pCi/L	1.5E+00	2.6E+00		2.08E-01	95.4	UISO_PLATE_AEA	2.031E-01	L	01/12/2007 21:21	I
6353628	Uranium	7440-61-1	3.81E+01	ug/L	4.5E+00	4.5E+00		8.35E-02		UTOT_KPA	2.51E-02	ML	01/19/2007 12:22	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JLTH11AB	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/07/2006 11:41
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 12/07/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BE	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353633	SR-90	-2.65E-01	pCi/L	1.9E-01	U	4.99E-01	68.4		SRISO_SEP_P	1.0025E+00	01/19/2007				D
BLK	10098-97-2			1.8E-01						L	07:00				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JLTH41AB	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/05/2006 11:50
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 12/06/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BG	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353636	H-3	2.96E+00	pCi/L	1.4E+02	U	2.97E+02	100.0		906.0_H3_LSC	5.00E-03	01/06/2007				D
BLK	10028-17-8			1.2E+02						L	21:49				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JLTH41DX	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/05/2006 11:50
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 12/06/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BI	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353636	H-3	1.12E+02	pCi/L	1.4E+02	U	3.03E+02	100.0		906.0_H3_LSC	5.00E-03	01/07/2007				D
BLK	10028-17-8			1.3E+02						L	00:32				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JLTH51AB	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/05/2006 11:50
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**BLK**		**Received Date:** 12/06/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BK	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353637	BETA	9.77E-01	pCi/L	1.2E+00	U	2.48E+00	100.0		9310_ALPHAB	1.997E-01	01/16/2007				D
BLK	12587-47-2			1.2E+00						L	13:29				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JLTH71AB	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/05/2006 11:50
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 12/06/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BM	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353638	ALPHA	-7.17E-02	pCi/L	3.1E-01	U	1.06E+00	100.0		9310_ALPHAB	1.982E-01	01/16/2007				D
BLK	12587-46-1			3.1E-01						L	18:10				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JLTHC1AB	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/05/2006 10:28
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 12/05/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BO	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353623	TC-99	-6.78E-01	pCi/L	5.7E+00	U	9.81E+00	100.0		TC99_ETVDSK	1.267E-01	01/13/2007				D
BLK	14133-76-7			4.0E+00						L	12:49				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JLTHQ1AB	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/06/2006 13:13
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 12/06/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BQ	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353627	I-129L	-2.98E-02	pCi/L	1.6E-01	U	2.81E-01	98.9		I129LL_SEP_L	3.6009E+00	01/23/2007				D
BLK	15046-84-1			1.6E-01						L	19:52				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JLTHT1AB	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/08/2006 09:45
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 12/08/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BS	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353628	Uranium	-1.32E-02	ug/L	2.2E-03	U	8.32E-02			UTOT_KPA	2.52E-02	01/19/2007				D
BLK	7440-61-1			2.2E-03						ML	11:23				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Sample Id: JLTHX1AB **Sdg/Rept Nbr:** W05076 34298 **Collection Date:** 12/11/2006 13:54

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 12/11/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BV	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353631	U-234	3.41E-02	pCi/L	7.0E-02	U	1.63E-01	95.0		UISO_PLATE_	2.034E-01	01/12/2007				D
BLK	13966-29-5			7.0E-02						L	21:21				
6353631	U-235	0.00E+00	pCi/L	7.0E-02	U	1.63E-01	95.0		UISO_PLATE_	2.034E-01	01/12/2007				D
BLK	15117-96-1			7.0E-02						L	21:21				
6353631	U-238	0.00E+00	pCi/L	7.0E-02	U	1.63E-01	95.0		UISO_PLATE_	2.034E-01	01/12/2007				D
BLK	U-238			7.0E-02						L	21:21				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JLTH11CS	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/07/2006 11:41
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 12/07/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BF	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353633	SR-90	1.31E+01	pCi/L	2.1E+00		4.60E-01	75.4	1.36E+01	SRISO_SEP_P	1.004E+00	01/19/2007			70	D
BS	10098-97-2			7.8E-01				96.5		L	07:00			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JLTH41CS	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/05/2006 11:50
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 12/06/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BH	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353636	H-3	2.54E+03	pCi/L	2.5E+02		2.97E+02	100.0	2.72E+03	906.0_H3_LSC	5.00E-03	01/06/2007			70	D
BS	10028-17-8			2.0E+02				93.5		L	23:10			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Sample Id: JLTH41EM **Sdg/Rept Nbr:** W05076 34298 **Collection Date:** 12/05/2006 11:50

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 12/06/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BJ	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353636	H-3	2.32E+03	pCi/L	2.4E+02		3.02E+02	100.0	2.72E+03	906.0_H3_LSC	5.00E-03	01/07/2007			70	D
BS	10028-17-8			2.0E+02				85.1		L	01:54			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Sample Id: JLTH51CS **Sdg/Rept Nbr:** W05076 34298 **Collection Date:** 12/05/2006 11:50

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 12/06/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BL	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353637	BETA	1.96E+01	pCi/L	4.2E+00		2.42E+00	100.0	2.26E+01	9310_ALPHAB	1.994E-01	01/16/2007			70	D
BS	12587-47-2			2.2E+00				86.8		L	13:29			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JLTH71CS	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/05/2006 11:50
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 12/06/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BN	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353638	ALPHA	1.97E+01	pCi/L	5.3E+00		9.55E-01	100.0	2.29E+01	9310_ALPHAB	1.997E-01	01/16/2007			70	D
BS	12587-46-1			2.9E+00				85.9		L	18:10			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JLTHC1CS	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/05/2006 10:28
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 12/05/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BP	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353623	TC-99	5.07E+02	pCi/L	3.6E+01		9.81E+00	100.0	5.42E+02	TC99_ETVDSK	1.254E-01	01/13/2007			70	D
BS	14133-76-7			1.3E+01				93.5		L	13:51			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JLTHQ1CS	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/06/2006 13:13
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 12/06/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BR	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353627	I-129L	9.32E+00	pCi/L	1.2E+00		6.13E-01	93.4	1.11E+01	I129LL_SEP_L	3.4428E+00	01/23/2007			70	D
BS	15046-84-1			1.2E+00				83.7		L	19:54			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Sample Id: JLTHT1CS **Sdg/Rept Nbr:** W05076 34298 **Collection Date:** 12/08/2006 09:45

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 12/08/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BT	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353628	Uranium	3.60E+01	ug/L	4.2E+00		8.32E-02		3.58E+01	UTOT_KPA	2.52E-02	01/19/2007			70	D
BS	7440-61-1			4.2E+00				100.3		ML	11:27			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JLTHT1DS	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/08/2006 09:45
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 12/08/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BU	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353628	Uranium	3.71E+00	ug/L	3.8E-01		8.38E-02		3.61E+00	UTOT_KPA	2.50E-02	01/19/2007			70	D
BS	7440-61-1			3.8E-01				102.6		ML	11:29			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Sample Id:	JLTHX1CS	**Sdg/Rept Nbr:**	W05076 34298	**Collection Date:**	12/11/2006 13:54
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	12/11/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BW	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353631	U-234	7.92E+00	pCi/L	1.7E+00		1.59E-01	99.8	8.70E+00	UISO_PLATE_	1.99E-01	01/12/2007			70	D
BS	13966-29-5			1.0E+00				91.0		L	21:21			130	
6353631	U-238	8.22E+00	pCi/L	1.7E+00		1.59E-01	99.8	9.11E+00	UISO_PLATE_	1.99E-01	01/12/2007			70	D
BS	U-238			1.0E+00				90.3		L	21:21			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JK3V31ER	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/05/2006 10:28
Client Id:	B1L294	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 12/05/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I07-010	MW6-SBB-A19981								AU	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353623	Tc-99	1.36E+02	pCi/L	1.4E+01		9.81E+00	100.0		TC99_ETVDSK	1.256E-01	01/13/2007	3.6	0.5		D
DUP	14133-76-7	1.41E+02		7.5E+00						L	09:57	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Sample Id: JK70P1DR **Sdg/Rept Nbr:** W05076 34298 **Collection Date:** 12/06/2006 13:13

Client Id: B1L216 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 12/06/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I07-009	MW6-SBB-A19981								AW	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353627	I-129L	6.05E-01	pCi/L	3.6E-01	U	4.53E-01	97.0		I129LL_SEP_L	3.9123E+00	01/23/2007	33.2	1.		D
DUP	15046-84-1	8.46E-01		3.6E-01						L	18:10	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JK72X1FR	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/05/2006 11:50
Client Id:	B1L650	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 12/06/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-011	MW6-SBB-A19981								AX	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353636	H-3	1.19E+03	pCi/L	1.9E+02		2.96E+02	100.0		906.0_H3_LSC	5.00E-03	01/07/2007	10.1	0.8		D
DUP	10028-17-8	1.07E+03		1.6E+02						L	04:37	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JK72X1GR	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/05/2006 11:50
Client Id:	B1L650	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 12/06/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-011	MW6-SBB-A19981								AY	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353637	BETA	6.75E+01	pCi/L	9.6E+00		2.97E+00	100.0		9310_ALPHAB	1.812E-01	01/16/2007	3.0	0.3		D
DUP	12587-47-2	6.96E+01		4.2E+00						L	13:29	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JK72X1HR	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/05/2006 11:50
Client Id:	B1L650	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 12/06/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-011	MW6-SBB-A19981								AZ	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353638	ALPHA	6.52E-01	pCi/L	1.1E+00	U	2.36E+00	100.0		9310_ALPHAB	1.70E-01	01/16/2007	20.0	0.2		D
DUP	12587-46-1	5.33E-01		1.1E+00						L	17:05	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Sample Id:	JK75E1CR	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/07/2006 11:41
Client Id:	B1L3D3	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 12/07/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-011	MW6-SBB-A19981								BA	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353633	SR-90	1.92E+00	pCi/L	4.4E-01		4.38E-01	78.7		SRISO_SEP_P	1.0019E+00	01/19/2007	11.4	0.7		D
DUP	10098-97-2	2.15E+00		3.4E-01						L	07:00	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JK76T1CR	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/08/2006 09:45
Client Id:	B1LCP4	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**DUP**		**Received Date:** 12/08/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-012	MW6-SBB-A19981								BB	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353628	Uranium	2.43E-02	ug/L	2.7E-03	U	8.12E-02			UTOT_KPA	2.58E-02	01/19/2007	1.2	0.2		D
DUP	7440-61-1	2.46E-02		2.7E-03						ML	11:53	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Lab Sample Id:	JLDGA1ER	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:**	12/11/2006 13:54	
Client Id:	B1LCK0	**Matrix:**	WATER	WATER	**Sample On Date:**		
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:**	12/11/2006	

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-012	MW6-SBB-A19981								BD	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353631	U-234	3.57E+01	pCi/L	6.2E+00		1.40E-01	101.4		UISO_PLATE_	1.996E-01	01/12/2007	1.2	0.1		D
DUP	13966-29-5	3.62E+01		2.1E+00						L	21:20	20.0	3		
6353631	U-235	1.59E+00	pCi/L	5.1E-01		1.23E-01	101.4		UISO_PLATE_	1.996E-01	01/12/2007	3.3	0.1		D
DUP	15117-96-1	1.54E+00		4.4E-01						L	21:20	20.0	3		
6353631	U-238	3.12E+01	pCi/L	5.5E+00		1.40E-01	101.4		UISO_PLATE_	1.996E-01	01/12/2007	9.0	0.8		D
DUP	U-238	3.41E+01		2.0E+00						L	21:20	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JK3W81EW	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/05/2006 08:54
Client Id:	B1L2C3	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	MS		**Received Date:** 12/05/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I07-010	MW6-SBB-A19981								AV	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353623	Tc-99	3.39E+03	pCi/L	2.1E+02		9.90E+00	100.0	3.61E+03	TC99_ETVDSK	1.254E-01	01/13/2007			60	D
MS	14133-76-7			3.2E+01				94.0		L	09:57			140	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05076.Edd, h:\Reportdb\edd\FeadIV\Rad\34298.Edd

Lab Sample Id:	JK76X1DW	**Sdg/Rept Nbr:**	W05076	34298	**Collection Date:** 12/08/2006 10:51
Client Id:	B1LCN9	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	MS		**Received Date:** 12/08/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-012	MW6-SBB-A19981								BC	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353628	Uranium	3.86E+01	ug/L	1.4E+01		8.12E-02		3.49E+01	UTOT_KPA	2.58E-02	01/19/2007			60	D
MS	7440-61-1			1.4E+01				110.6		ML	12:11			140	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/17/2007 4:38:06 PM

Lot No., Due Date: J6L110155,J6L110156,J6L130175; 01/25/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6353631; RUISO Ulso by ALP

SDG, Matrix: W05076; WATER

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review Pam Andersen **Date** 1-17-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6353631
W05074

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4, Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Sheryl A Adam Date: 1-18-07

Lot No., Due Date: J6L110147; 01/25/2007
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 6353638; RALPHA-A Alpha by GPC-Am
SDG, Matrix: W05076; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JK72X1AC 167.10<200.00 Q:VB		✓	
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17 Tracer within Control Limits. OK	✓		
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	✓		
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK	✓		
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => ALPHA OK; No Callin Level Found => ALPHA	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!			✓

8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions.)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions.)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Lisa Quinton Pam Anderson **Date** 1/18/07

1-18-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6353638
W05074

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	/		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	/		
3. Are the correct isotopes reported?	/		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?	/		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			/
5. Is the LCS recovery with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other 1. Are all Nonconformances included and noted?			/
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response: _____

Second Level Review: Sheryl R Adams Date: 1-19-07

Lot No., Due Date: J6L110147; 01/25/2007
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 6353637; RBETA-SR Beta by GPC-Sr/Y
SDG, Matrix: W05076; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JK72X1AD 182.20<200.00 Q:VB		✓	
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17 Tracer within Control Limits. OK	✓		
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	✓		
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => JK72X1AD BETA 7.0E+01 L:3.0E+00		✓	
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => BETA OK; No Callin Level Found => BETA	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!			✓

8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions).	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Lisa Anderson Pam Anderson 1-18-07 **Date** 1/18/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6355637
W05076

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	/		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	/		
3. Are the correct isotopes reported?	/		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?	/		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			/
5. Is the LCS recovery with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other 1. Are all Nonconformances included and noted?			/
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response: _____

Second Level Review: Sheryl A Adam Date: 1-19-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/23/2007 8:13:30 AM

Lot No., Due Date: J6L080147,J6L110154,J6L130175; 01/25/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6353633; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W05076; WATER

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

NCM# 10-09324

First Level Review Pam Anderson **Date** 1-23-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6355633
W05076

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	/		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	/		
3. Are the correct isotopes reported?	/		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?	/		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			/
5. Is the LCS recovery with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other 1. Are all Nonconformances included and noted?			/
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response: _____

Second Level Review: Sheryl A Adam Date: 1-25-07

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-09324
NCM Initiated By: Pam Anderson
Date Opened: 01/23/2007
Date Closed:

Classification: **Deficiency**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: Sr-85/90 by GPC-7
Lot #'s (Sample #'s): J6L080147 (1,2,3,4), J6L110154 (1), J6L130175 (2,3), J6L190000 (633),
QC Batches: 6353633

Nonconformance: Technician Error
Subcategory: Laboratory error: analyst error

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	01/23/2007	The tech notes in the comment section that sample JK3XF1AC may have slightly contaminated sample JK75E1AA. The results show JK3XF1AC is negative and JK75E1AA has a duplicate that agrees with it very well. Data will be accepted.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	01/23/2007	The tech will be more careful.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
	Response	Response Note			

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/24/2007 8:30:20 AM

Lot No., Due Date:	J6L080147,J6L110136; 01/25/2007
Client, Site:	384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test:	6353627; RGAMLEPS Gamma by LEPS
SDG, Matrix:	W05076; WATER

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?	✓		
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review Pam Carleson **Date** 1-24-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6353627
W05074

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Sheryl A Adam Date: 1-24-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/17/2007 4:45:30 PM

Lot No., Due Date: J6L080147,J6L110136,J6L110147; 01/25/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6353623; RTC99 Tc-99 by LSC

SDG, Matrix: W05076; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples Incorrect Tracer/Vial => JK3W81AE TCSG<>TCSE Q:V9		✓	
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used OK	✓		
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. OK	✓		
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!			✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	✓		
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => Tc-99 TC-99 OK; No Callin Level Found => Tc-99 TC-99	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		

8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A ✓
8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Pam Anderson **Date** 1-17-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 355623
W50764

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	/		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	/		
3. Are the correct isotopes reported?	/		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?	/		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			/
5. Is the LCS recovery with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other 1. Are all Nonconformances included and noted?			/
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response:

Second Level Review: Sheryl A Adam Date: 1-18-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/9/2007 4:51:00 PM

Lot No., Due Date: J6L110147,J6L130175; 01/25/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6353636; RTRITIUM H-3 by LSC

SDG, Matrix: W05076; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JK72X1AA 5.00<10.00 JK73K1AA 5.00<10.00 JLDGA1AA 5.00<10.00 Q:VB		✓	
8.07 The Correct Count Geometry was Used. Count Geometry => JLTH41AF SVP15/5<>SVP10/10 JLTH41AG SVP15/5<>SVP10/10 JLTH41AA SVP15/5<>SVP10/10 JLTH41AC SVP15/5<>SVP10/10 JLTH41AD SVP15/5<>SVP10/10 JLTH41AE SVP15/5<>SVP10/10 JK72X1AA SVP15/5<>SVP10/10 JK72X1AF SVP15/5<>SVP10/10 JK73K1AA SVP15/5<>SVP10/10 JLDGA1AA SVP15/5<>SVP10/10 Q:VC		✓	
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. OK	✓		
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. RPD > UCL : 20.0=> JK72X1AF H-3 25.0 (RPD)		✓	
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. OK	✓		
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!			✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	✓		

8.23 Result <= Action Level, when Defined. OK; No Action Level Found => H-3 OK; No Callin Level Found => H-3	Yes ✓	No	N/A
8.24 Result + 3s >=0, Not Too Negative. OK	Yes ✓	No	N/A
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A ✓
8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Pam Anderson **Date** 1-10-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 435426
W050716

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Sheryl A Adam Date: 1-10-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/23/2007 3:35:06 PM

Lot No., Due Date: J6L110151,J6L110156,J6L130175; 01/25/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6353628; RUNAT UNat by KPA

SDG, Matrix: W05076; WATER

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?			✓
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?	✓		
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?	✓		
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:
See NCM. 10-09328 10-09330

First Level Review Pam Anderson **Date** 1-23-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6353628

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?	✓		
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Nonconformances included and noted?	✓		
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: See NCM

Second Level Review: Sheryl A Adam Date: 1-25-07

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-09328
NCM Initiated By: Pam Anderson
Date Opened: 01/23/2007
Date Closed:

Classification: **Deficiency**
Status: **GLREVIEW**
Production Area: Bioassay Sep
Tests: UNat by KPA
Lot #'s (Sample #'s): J6L110151 (1,2,3), J6L110156 (1,2,3,4), J6L130175 (1,2,3,4), J6L190000 (628), J7A020172 (1,2,3,4), J7A030000 (442),
QC Batches: 6353628, 7003442

Nonconformance: Technician Error
Subcategory: Laboratory error: analyst error

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	01/23/2007	The counting tech forgot to count a blank at the end of the calibration on Jan. 22,2007. A blank was couonted at the end of batch 7003442 that was acceptable.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	01/23/2007	The tech was reminded that a blank must be counted at the end of calibration and next time it is forgotten all data that day will have to be recounted.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
	Response	Response Note			

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-09330
NCM Initiated By: Pam Anderson
Date Opened: 01/23/2007
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: UNat by KPA
Lot #'s (Sample #'s): J6L110151 (1),
QC Batches: 6353628

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	01/23/2007	Sample JK7341AA showed some matrix effect during counting. The lifetime was out, low. The sample was recounted the next day at 1-10 dillution. The recount has a good lifetime. The sample was recounted on the day a blank was not counted after calibration as noted in NCM# 10-09328.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	01/23/2007	The tech has been given further training on being observant.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

PNNL 06L080147
WO 5076
Due 01-19-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-010-58**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-010	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2ZP1-LOI, NOVEMBER 2006	HNF-N-506-1	**Ice Chest No.** RoSJ **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1L289		W	12-5-06	0919	1x20-mL P	Activity Scan	None
B1L289		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1L289		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1L289		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JK3XT	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			DEC 05 2006				DEC 05 2006
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) | Disposed By | Date/Time

PNNL J6L080147
WO5076
Due 01-19-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-010-74**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-010	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2ZP1-LOI, NOVEMBER 2006	1fNF-N-506-1	**Ice Chest No.** ROSS **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1L299		W	12-5-06	1102	1x20-mL P	Activity Scan	None
B1L299		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1L299		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1L299		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JK3XF	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford	R. T. SICKLE		DEC 05 2006 1420	S. Smith	S. Smith		DEC 05 2006 1420
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil		DS	=	Drum Solid
SE	= Sediment		DL	=	Drum Liqui
SO	= Solid		T	=	Tissue
SL	= Sludge		WI	=	Wine
W	= Water		L	=	Liquid
O	= Oil		V	=	Vegetation
A	= Air		X	=	Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) | Disposed By | Date/Time

PNNL JGL080147
WO5076
Due 1-19-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-010-96**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-010	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2ZP1-LOI, NOVEMBER 2006	HNF-N-506-1	**Ice Chest No.** Ross **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1L2C3		W	12-5-06	0854	1x20-mL P	Activity Scan	None
B1L2C3		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1L2C3		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1L2C3		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JK3W8	

	Print	Sign	Date/Time		Print	Sign	Date/Time
Relinquished By	Fluor Hanford R. T. SICKLE		DEC 05 2006 1420	Received By	A. Smith	S. Smith	DEC 05 2006 1420
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) | Disposed By | Date/Time

PNNL UGL080147
WO5076
Due 1-19-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-010-66**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-010	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2ZP1-LOI, NOVEMBER 2006	HNF-N-506-1	**Ice Chest No.** Ross **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1L294		W	12-5-06	1028	1x20-mL P	Activity Scan	None
B1L294		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1L294		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1L294		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JK 3V3	

Relinquished By Print: Fluor Hanford R. T. SICKLE Sign:	Date/Time 14:20 DEC 05 2006	Received By Print: A. Smith Sign: S. Smith	Date/Time 14:20 DEC 05 2006
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liquid	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 12·5·06 1420

Client: PGW SDG #: W050716 NA [ ] SAF #: I07-010 NA [ ]

Work Order Number: J6L080147 Chain of Custody # I07-010-66, 96, 74, 58

Shipping Container ID: ROSS Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [X] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [X] No [ ]
3. Chain of Custody record present? Yes [X] No [ ]
4. Cooler temperature: _____ NA [X] 5. Vermiculite/packing materials is NA [X] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 4
7. Sample holding times exceeded? NA [X] Yes [ ] No [ ]
8. Samples have:
   _____tape
   _____custody seals
   _____hazard labels
   _X_appropriate samples labels
9. Samples are:
   _X_in good condition
   _____broken
   _____leaking
   _____have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [X] pH>2 [X] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [X] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [X]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: L. Smith Date: 12·5·06 1420

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL 06L110136
WO 5076
due 01-19-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-009-85**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-009	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2UP1-LOL NOVEMBER 2006	HNF-N-506-1	**Ice Chest No.** R051 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1L216		W	12-5-06	1713	1x20-mL P	Activity Scan	None
B1L216		W	"	"	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1L216		W	"	"	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
						JK 70P	

Relinquished By Fluor Hanford R. T. SICKLE	Date/Time DEC 05 2006 1500 12-6-06	Received By S. Smith	Date/Time DEC 05 2006 1500 12-6-06
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) | Disposed By | Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 12-06-06 1500

Client: PBW SDG #: W05076 NA [ ] SAF #: I07-009 NA [ ]

Work Order Number: V6L110136 Chain of Custody # I07-009-85

Shipping Container ID: ROSS Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [/] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [/] No [ ]
3. Chain of Custody record present? Yes [/] No [ ]
4. Cooler temperature: _____ NA [/] 5. Vermiculite/packing materials is NA [/] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [/] Yes [ ] No [ ]
8. Samples have:
   _____tape
   _____custody seals
   _____hazard labels
   ___/___appropriate samples labels
9. Samples are:
   ___/___in good condition
   _____broken
   _____leaking
   _____have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [/] pH>2 [/] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [/] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [/]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: L. Smith Date: 12-6-06 1500

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL 06L110147
W05076
due 01.19.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-011-378**

Page 1 of 1

Collector FLUOR HANFORD M.R. WEIL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-011	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, NOVEMBER 2006	HNF-506 4	**Ice Chest No.** GRP-06-002 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1L600		W	12-6-06	1245	1x20-mL P	Activity Scan	None
B1L600		W	〃	〃	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1L600		W	〃	〃	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
						JK73K	
						12-6-06	

Relinquished By FLUOR HANFORD M.R. WEIL Print / Sign / Date/Time 1500 DEC 0 6 2006	Received By S. Smith Print / S. Smith Sign / Date/Time 1500 DEC 0 6 2006	Matrix *
Relinquished By / Date/Time	Received By / Date/Time	S = Soil, SE = Sediment, SO = Solid, SL = Sludge, W = Water, O = Oil, A = Air, DS = Drum Solid, DL = Drum Liqui, T = Tissue, WI = Wine, L = Liquid, V = Vegetation, X = Other
Relinquished By / Date/Time	Received By / Date/Time	
Relinquished By / Date/Time	Received By / Date/Time	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) / Disposed By / Date/Time

PNNL JGL 110147
W05076
due 01-19-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-011-432**

Page 1 of 1

Collector FLUOR HANFORD M.R. WEIL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-011	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, NOVEMBER 2006	HNF-N-506 4	**Ice Chest No.** GRP-06-002 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1L650		W	12-5-06	1150	1x20-mL P	Activity Scan	None
B1L650		W	"	"	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1L650		W	"	"	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1L650		W	"	"	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
						JK72X	
						DNP	
						12-5-06	

Relinquished By FLUOR HANFORD M.R. WEIL Print / Sign	Date/Time 1500 DEC 06 2006	Received By S. Smith Print / S. Smith Sign	Date/Time 1500 DEC 06 2006
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) | Disposed By | Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 12-06-06 1500

Client: PGW SDG #: W05076 NA [ ] SAF #: W07-011 NA [ ]

Work Order Number: U6L110147 Chain of Custody # W07-011-432, 378

Shipping Container ID: GRP-06-002 Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____tape
   _____custody seals
   _____hazard labels
   __1__appropriate samples labels
9. Samples are:
   __1__in good condition
   _____broken
   _____leaking
   _____have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓] ?
13. Description of anomalies (include sample numbers): COC # W07-011-432 Sample # BLL650 Reads sample date 12-5-06. The COC is stamped 12-6-06

Sample Custodian: A. Smith Date: 12-06-06 1500

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on 12/13/06 by S. Seger Person contacted Dot Stewart

[✓] No action necessary; process as is.

Project Manager Sandra Seger Date 12/13/06

LS-023, 9/03, Rev. 5

Seger, Sandra

From: Seger, Sandra
Sent: Wednesday, December 13, 2006 7:46 AM
To: 'Stewart, Dorothy L'
Cc: Felmy, Diana; 'Waters-Husted, Karen S'
Subject: W05072 & W05076 COCs / Anomalies noted on COC W07-011-432

Attachments: W05072.PDF; W05076.PDF


W05072.PDF (107 KB)


W05076.PDF (1 MB)

Please note the anomalies on the sample check in list for COC W07-011-432.

Thanks,
Sandra

PNNL JGL110151
W05076
Due 01.22.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-011-116**

Page 1 of 1

Collector FLUOR HANFORD M.R. WEIL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-011	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title ISRM-LOI, NOVEMBER 2006	HNF-N-506 4	**Ice Chest No.** SML-562 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1L2X1		W	12-7-06	1038	1x20-mL P	Activity Scan	None
B1L2X1		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

JK739

12-7-06

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
FLUOR HANFORD M.R. WEIL	M.R. Weil		DEC 07 2006 1415		J. Smith	J. Smith	DEC 07 2006 1415
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PNNL 06L110151
W05076
Due 01-22-06
07
55

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-011-117**

Page 1 of 1

Collector FLUOR HANFORD M.R. WEIL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-011	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title ISRM-LOI NOVEMBER 2006	HNF-N-506 4	**Ice Chest No.** SmL-562 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1L2X2		W	12-7-06	1038	1x20-mL P	Activity Scan	None
B1L2X2		W	〃	〃	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

JK736

12-7-06

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
FLUOR HANFORD M.R. WEIL	M.R. Weil	M.R. Weil	DEC 07 2006 1415	S. Smith	S. Smith	S. Smith	DEC 07 2006 1415

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL U6L110151
W05076
due 01.22.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-011-66**

Page 1 of 1

Collector ~~FLUOR HANFORD~~ M.R. WEIL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-011	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title ISRM-LOI, NOVEMBER 2006	HNF-N-506 4	**Ice Chest No.** SmL 562 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1L2R2		W	12-7-06	0914	1x20-mL P	Activity Scan	None
B1L2R2		W	"	"	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

JK 734

12-7-06

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
FLUOR HANFORD M.R. WEIL	M.R. Weil		DEC 07 2006 1415	L. Smith	S. Smith		DEC 07 2006 1415
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 12-07-06 14:15

Client: PGW SDG #: W05076 NA [ ] SAF #: F07-011 NA [ ]

Work Order Number: J6L110151 Chain of Custody # F07-011-66, 117, 116

Shipping Container ID: SML-562 Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 3
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____tape
   _____custody seals
   _____hazard labels
   ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____broken
   _____leaking
   _____have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [ ] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: L. Smith Date: 12-7-06 14:15

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL 06L110154
W05076
Due 01-22-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-011-84**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-011	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, NOVEMBER 2006	HNF-N-506-3	**Ice Chest No.** SML 24 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1L3D3		W	12-7-06	1141	1x20-mL P	Activity Scan	None
B1L3D3		W	〃	〃	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JK75E	

Relinquished By Fluor Hanford R. T. SICKLE	Print	Sign	Date/Time 1450 DEC 0 7 2006	Received By S. Smith	Print S. Smith	Sign	Date/Time 1450 DEC 0 7 2006
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 12-07-06 1450

Client: PGW SDG #: W05076 NA [ ] SAF #: 507-011 NA [ ]

Work Order Number JGL110154 Chain of Custody # 507-011-84

Shipping Container ID: SML24 Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____tape
   _____custody seals
   _____hazard labels
   ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____broken
   _____leaking
   _____have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [ ] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: S. Smith Date: 12-7-06 1450

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL 06L110155
W05076
due 01-22-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-012-146**

Page 1 of 1

Collector Fluor Hanford D. E. PARCHEN	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, DECEMBER 2006	MW-W-306-4	**Ice Chest No.** 5F-1-36 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LCV5		W	12-8-06	1018	1x20-mL P	Activity Scan	None
B1LCV5		W	↓	↓	1x1000-mL G/P	UISO_PLATE_AEA: List-1 (3)	HNO3 to pH <2
						JK752	

Relinquished By Fluor Hanford D. E. PARCHEN Sign DEC 08 2006 Date/Time 1245	Received By L. Smith Sign DEC 08 2006 Date/Time 1245	Matrix *	
Relinquished By Date/Time	Received By Date/Time	S = Soil, SE = Sediment, SO = Solid, SL = Sludge, W = Water, O = Oil, A = Air	DS = Drum Solid, DL = Drum Liqui, T = Tissue, WI = Wine, L = Liquid, V = Vegetation, X = Other
Relinquished By Date/Time	Received By Date/Time		
Relinquished By Date/Time	Received By Date/Time		

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 12-08-06 1245

Client: PGW SDG #: W05076 NA [ ] SAF #: 507-012 NA [ ]

Work Order Number: 06L110155 Chain of Custody # 507-012-146

Shipping Container ID: JF-1-36 Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [/] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [/] No [ ]
3. Chain of Custody record present? Yes [/] No [ ]
4. Cooler temperature: _____ NA [/] 5. Vermiculite/packing materials is NA [/] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [/] Yes [ ] No [ ]
8. Samples have:
   _____tape
   _____custody seals
   _____hazard labels
   __1__appropriate samples labels
9. Samples are:
   _____in good condition
   _____broken
   _____leaking
   _____have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [/] pH>2 [ ] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [/] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [/]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: S. Smith Date: 12-08-06 12:45

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL 46110156
W05076
due 01.22.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-012-196**

Page 1 of 1

Collector	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. R. T. SICKLE S07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, DECEMBER 2006	HNF-N-561	**Ice Chest No.** ROSS **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.

WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LCN9		W	12806	1051	1x20-mL P	Activity Scan	None
B1LCN9		W	↓	↓	1x1000-mL G/P	UISO_PLATE_AEA: List-1 (3)	HNO3 to pH <2
B1LCN9		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JK76X	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
R. T. SICKLE	R. T. SICKLE	R. T. Sickle	DEC 08 2006 1357	L. Smith	L. Smith	L. Smith	DEC 08 2006 1357
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL 06L110156
W05076
due 01.22.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-012-188**

Page 1 of 1

Collector Fluor Hanford F. M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, DECEMBER 2006	HNF-N-506 3	**Ice Chest No.** SAWS 115 **Temp.**
Shipped To (Lab) Severn Trent Incornorated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LCP4		W	12-8-06	0945	1x20-mL P	Activity Scan	None
B1LCP4		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JK76T	

Relinquished By Print: Fluor Hanford F. M. HALL Sign:	Date/Time 1357 DEC 0 8 2006	Received By Print: L. Smith Sign: L. Smith	Date/Time 1357 DEC 0 8 2006
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) | Disposed By | Date/Time

PNNL 06K110156
WO5076
due 01.22.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-012-204**

Page 1 of 1

Collector Fluor Hanford F. M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code** ROSS dtd 12-8-06
Project Title SURV, DECEMBER 2006	HNF-N-506 3	**Ice Chest No.** ~~SAMPLE~~ **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LCN4		W	12-8-06	1211	1x20-mL P	Activity Scan	None
B1LCN4		W	"	"	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JK76P	

Relinquished By Print: Fluor Hanford F. M. HALL Sign:	Date/Time DEC 0 8 2006 1352	Received By Print: S. Smith Sign: S. Smith	Date/Time DEC 0 8 2006 1352
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL 06L110156
W05076
Due 01.22.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-012-212**

Page 1 of 1

Collector R.T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, DECEMBER 2006	HNF-N-576 1	**Ice Chest No.** 1055 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LCM9		W	12-8-06	1323	1x20-mL P	Activity Scan	None
B1LCM9		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JK 76K	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	R.T. SICKLE		DEC 08 2006 1352		S. Smith	S. Smith	DEC 08 2006 1352
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 12-8-06 1352

Client: POW SDG #: W05076 NA [ ] SAF #: 507-012 NA [ ]

Work Order Number: 06L110156 Chain of Custody # 507-012 - 212, 204, 188, 196

Shipping Container ID: ROSS SAMSUS Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 4
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____tape
   _____custody seals
   _____hazard labels
   ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____broken
   _____leaking
   _____have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [ ] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: L. Smith Date: 12-08-06 1352

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL 06L130175
W05076
Due 01-25-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-012-324**

Page 1 of 1

Collector Fluor Hanford F. M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, DECEMBER 2006	HNF-N-506 1	**Ice Chest No.** ROSS **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LCL0		W	12-11-06	1219	1x20-mL P	Activity Scan	None
~~B1LCL0~~		~~W~~			~~1x1000-mL G/P~~	~~UISO_PLATE_AEA: List 1 (3)~~ 12-6-06 DF	HNO3 to pH <2
B1LCL0		W	12-11-06	1219	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JLDG4	

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Fluor Hanford F. M. HALL		DEC 11 2006 14:41	DAVID HARBISON		DEC 11 2006 14:41
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PNNL 46L130175
W05076
Due 01.25.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-012-340**

Page 1 of 1

Collector Fluor Hanford F. M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, DECEMBER 2006	HNF-N-506 1	**Ice Chest No.** ROSS **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LCL9		W	12-11-06	1027	1x20-mL P	Activity Scan	None
B1LCL9		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1LCL9		W			1x1000-mL G/P	UISO_PLATE_AEA: List-1 (3)	HNO3 to pH <2
B1LCL9		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JLDGJ	

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Fluor Hanford F. M. HALL		4:41 DEC 11 2006	DAVID HARBISON		4:41 DEC 11 2006
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) | Disposed By | Date/Time

PNNL UGL 130175
W05076
Due 01-25-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-012-341**

Page 1 of 1

Collector Fluor Hanford F. M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, DECEMBER 2006	HNF-N-506 1	**Ice Chest No.** ROSS **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LCM0		W	12-11-06	0750	1x20-mL P	Activity Scan	None
B1LCM0		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1LCM0		W			1x1000-mL G/P	UISO_PLATE_AEA: List-1 (3)	HNO3 to pH <2
B1LCM0		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JLDEF	

Relinquished By Fluor Hanford F. M. HALL Print / Sign	Date/Time 1411 DEC 11 2006	Received By DAVID HANBINSON Print / Sign	Date/Time 1411 DEC 11 2006
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) | Disposed By | Date/Time

PNNL J6L130175
W05076
Due 01/25/07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-012-308**

Page 1 of 1

Collector Fluor Hanford F. M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, DECEMBER 2006	UNF-N-506 1	**Ice Chest No.** ROSS **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LCK0		W	12-11-06	1354	1x20-mL P	Activity Scan	None
B1LCK0		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1LCK0		W			1x1000-mL G/P	UISO_PLATE_AEA: List-1 (3)	HNO3 to pH <2
B1LCK0		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						OLDEA	

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Fluor Hanford F. M. HALL		4:41 DEC 11 2006	DAVID HARBISON		4:41 DEC 11 2006
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time

Matrix *

S	= Soil		DS	= Drum Solid	
SE	= Sediment		DL	= Drum Liqui	
SO	= Solid		T	= Tissue	
SL	= Sludge		WI	= Wipe	
W	= Water		L	= Liquid	
O	= Oil		V	= Vegetation	
A	= Air		X	= Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 12-11-06 14:41

Client: PGW SDG #: W05076 NA [ ] SAF #: 507-012 NA [ ]

Work Order Number: JGL130175 Chain of Custody # 507-012-308, 341, 340, 324

Shipping Container ID: ROSS Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [X] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [X] No [ ]
3. Chain of Custody record present? Yes [X] No [ ]
4. Cooler temperature: _____ NA [X] 5. Vermiculite/packing materials is NA [X] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 4
7. Sample holding times exceeded? NA [X] Yes [ ] No [ ]
8. Samples have:
   _____tape
   _____custody seals
   _____hazard labels
   ___X___appropriate samples labels
9. Samples are:
   ___X___in good condition
   _____broken
   _____leaking
   _____have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [X] pH>2 [X] pH>9 [ ]
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. Yes [X] No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No [X]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: DH S. Smith Date: 12-11-06 1441

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

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